

## REMARKS

In view of the above-amendments and the following remarks, reconsideration and further examination are requested.

The specification and abstract have been amended and replaced with the attached substitute specification, which indicates the changes with bracketing and underlining as required for reissue applications. No new matter has been added.

Claims 22-29 were provisionally rejected under the doctrine of obviousness-type double patenting as being unpatentable over the claims of copending application no. 09/686,465. This rejection is traversed.

The claims in application no. 09/686,465 have been substantially amended. Thus, the currently pending claims in application no. 09/686,465 are quite dissimilar to the claims of the present application. A representative claim from application 09/686,465 is reproduced as follows for the convenience of the Examiner:

32. A signal receiving apparatus capable of receiving a VSB modulated signal processed by digital modulation and a QAM modulated signal processed by digital modulation, which are a terrestrial broadcasting signal and a cable television signal, respectively, said signal receiving apparatus comprising:

a mixer operable to convert the VSB modulated signal to a low frequency signal of the VSB modulated signal, and operable to convert the QAM modulated signal to a low frequency signal of the QAM modulated signal;

a QAM demodulator operable to demodulate the low frequency signal of the QAM modulated signal to a QAM demodulated signal; and

a VSB demodulator operable to demodulate the low frequency signal of the VSB modulated signal to a VSB demodulated signal.

It is submitted that upon a review of the currently pending claims of application no. 09/686,465 the Examiner will agree that the provisional double patenting rejection is no longer

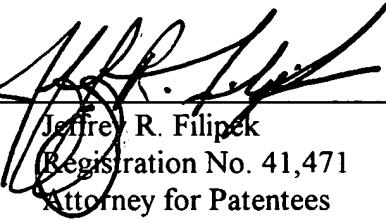
applicable to the claims in the present application. Moreover, the claims in the present application have not been rejected on the basis of prior art, and the Examiner has indicated that the prior art does not disclose the claimed invention. Therefore, it is clear that the claims of the present application should be allowed and that the present application is in condition for allowance.

The Examiner is invited to contact the undersigned attorney by telephone to resolve any remaining issues.

Respectfully submitted,

Mitsuaki OSHIMA et al.

By:

  
Jeffrey R. Filipek  
Registration No. 41,471  
Attorney for Patentees

JRF/fs  
Washington, D.C. 20006-1021  
Telephone (202) 721-8200  
Facsimile (202) 721-8250  
June 30, 2003

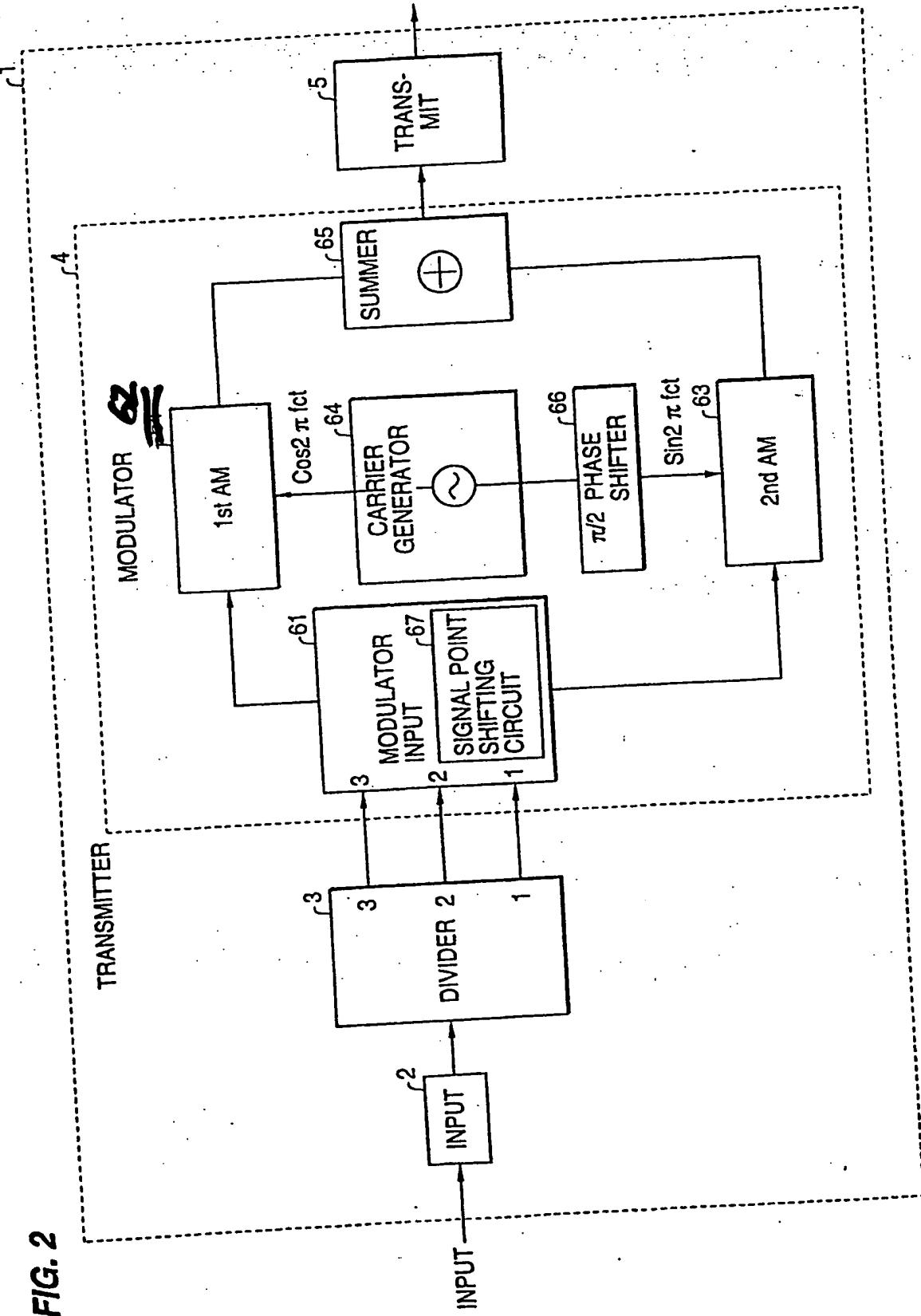
Approved  
12/8/04

U.S. Patent

Feb. 4, 1997

Sheet 2 of 178

5,600,672



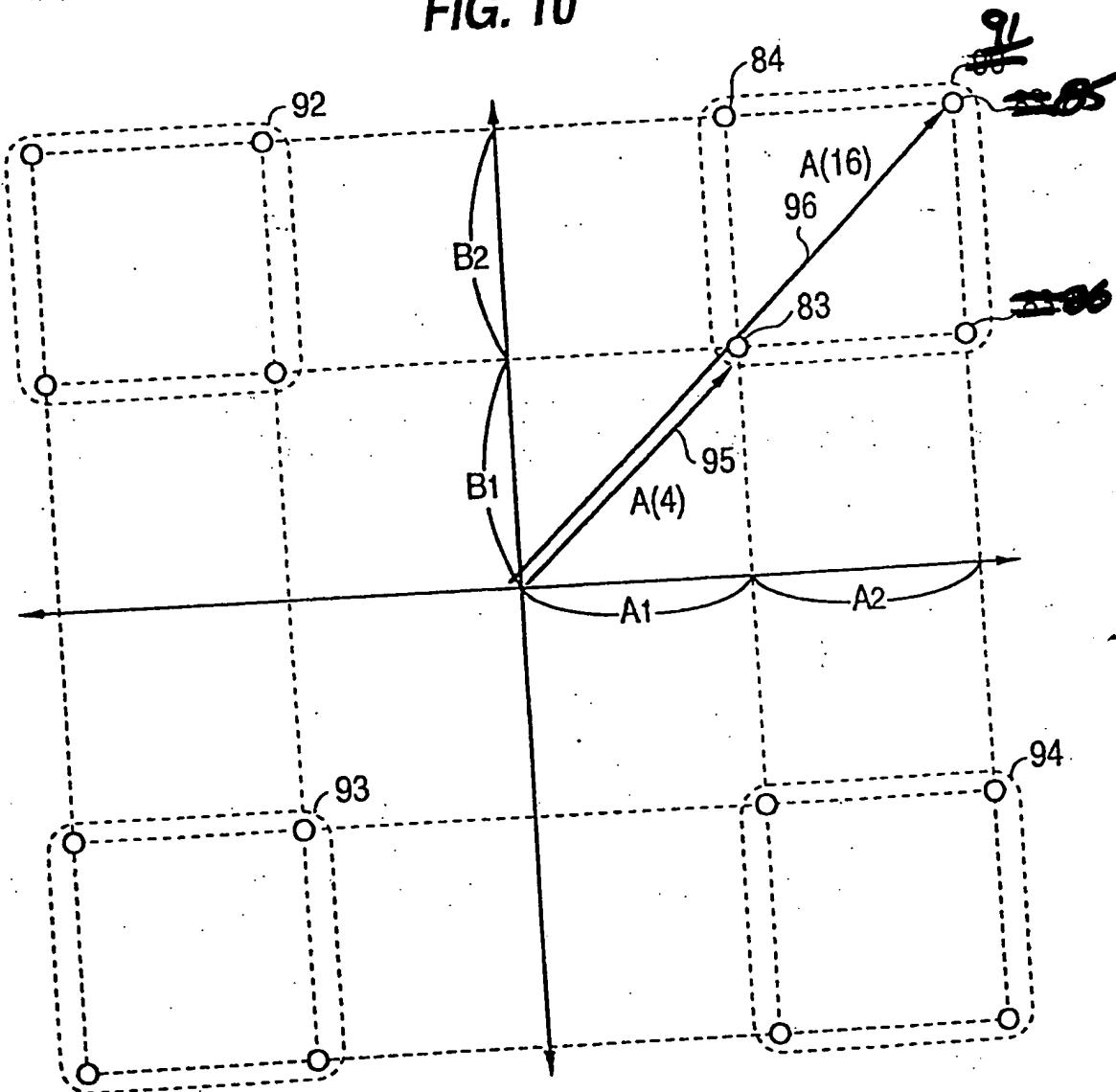
U.S. Patent

Feb. 4, 1997

Sheet 10 of 178

5,600,672

FIG. 10



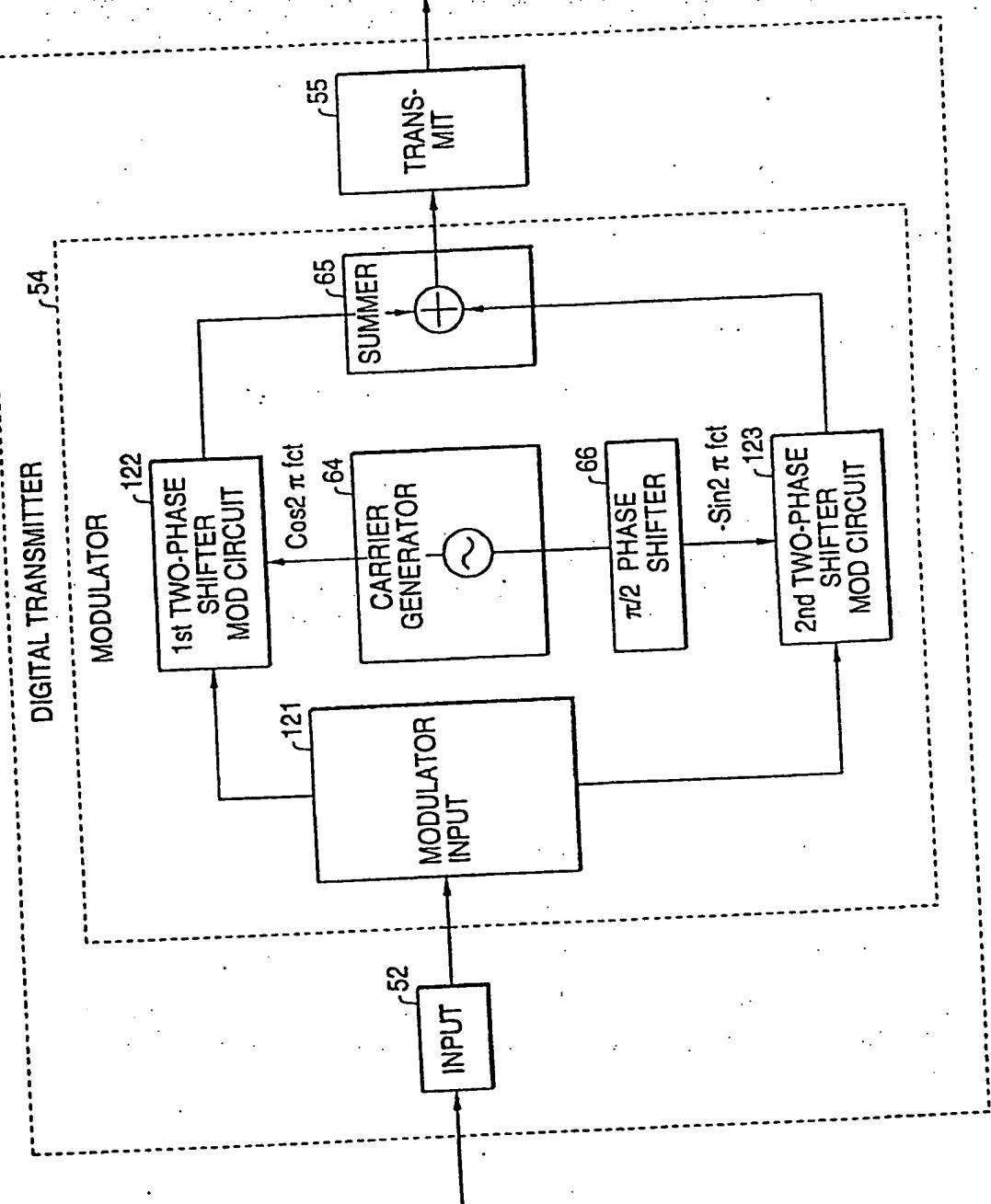


FIG. 17

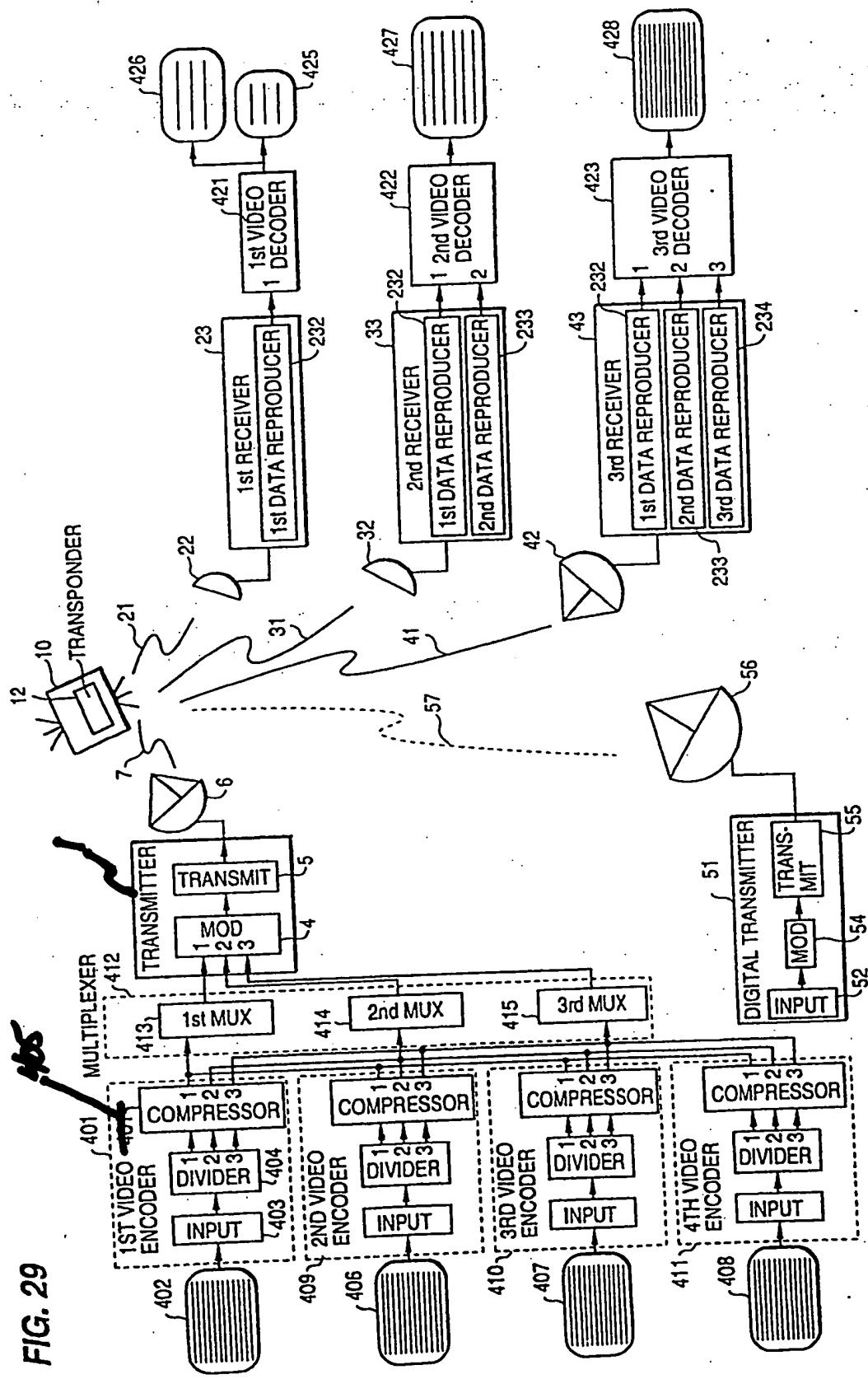


FIG. 48

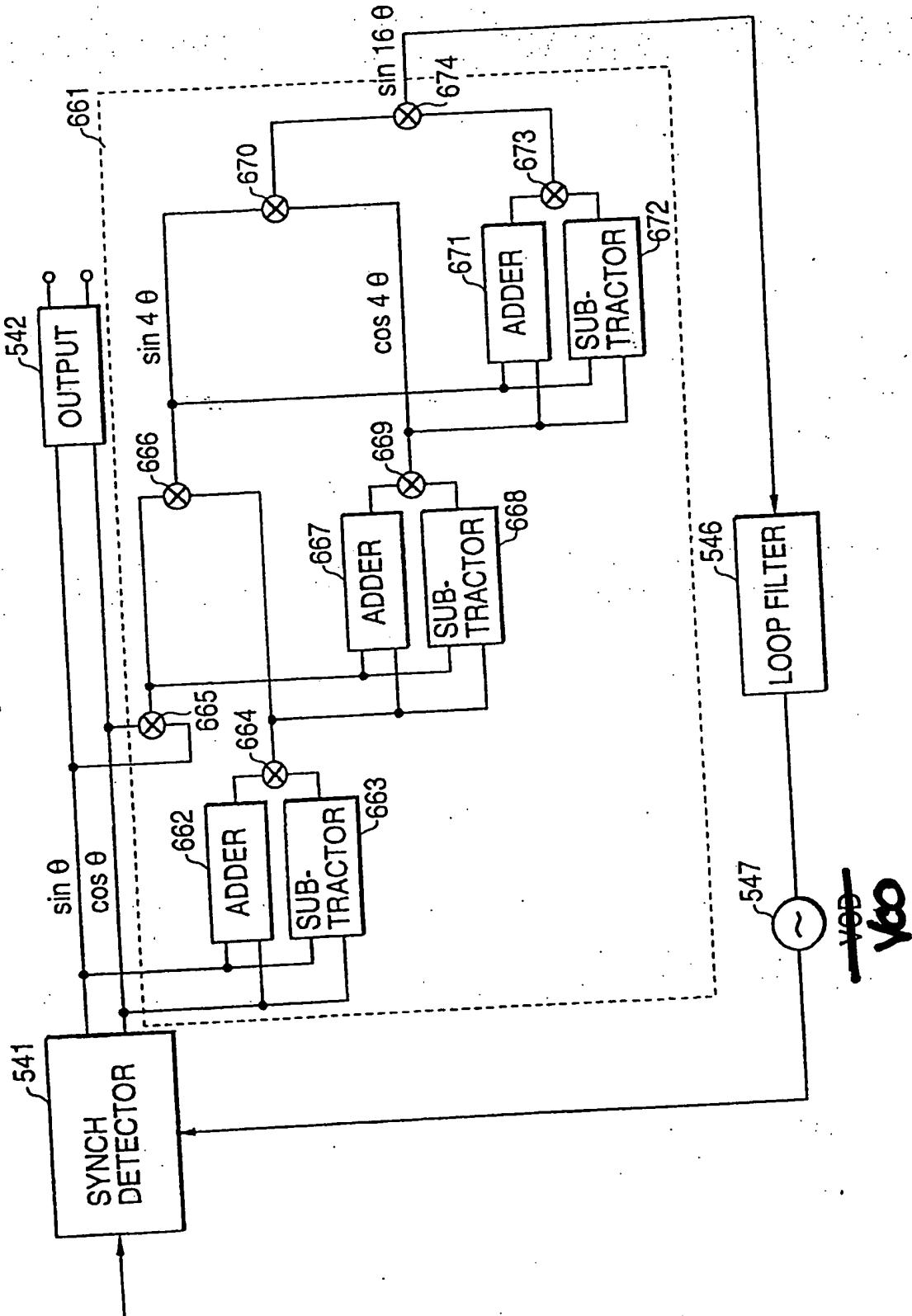


FIG. 65

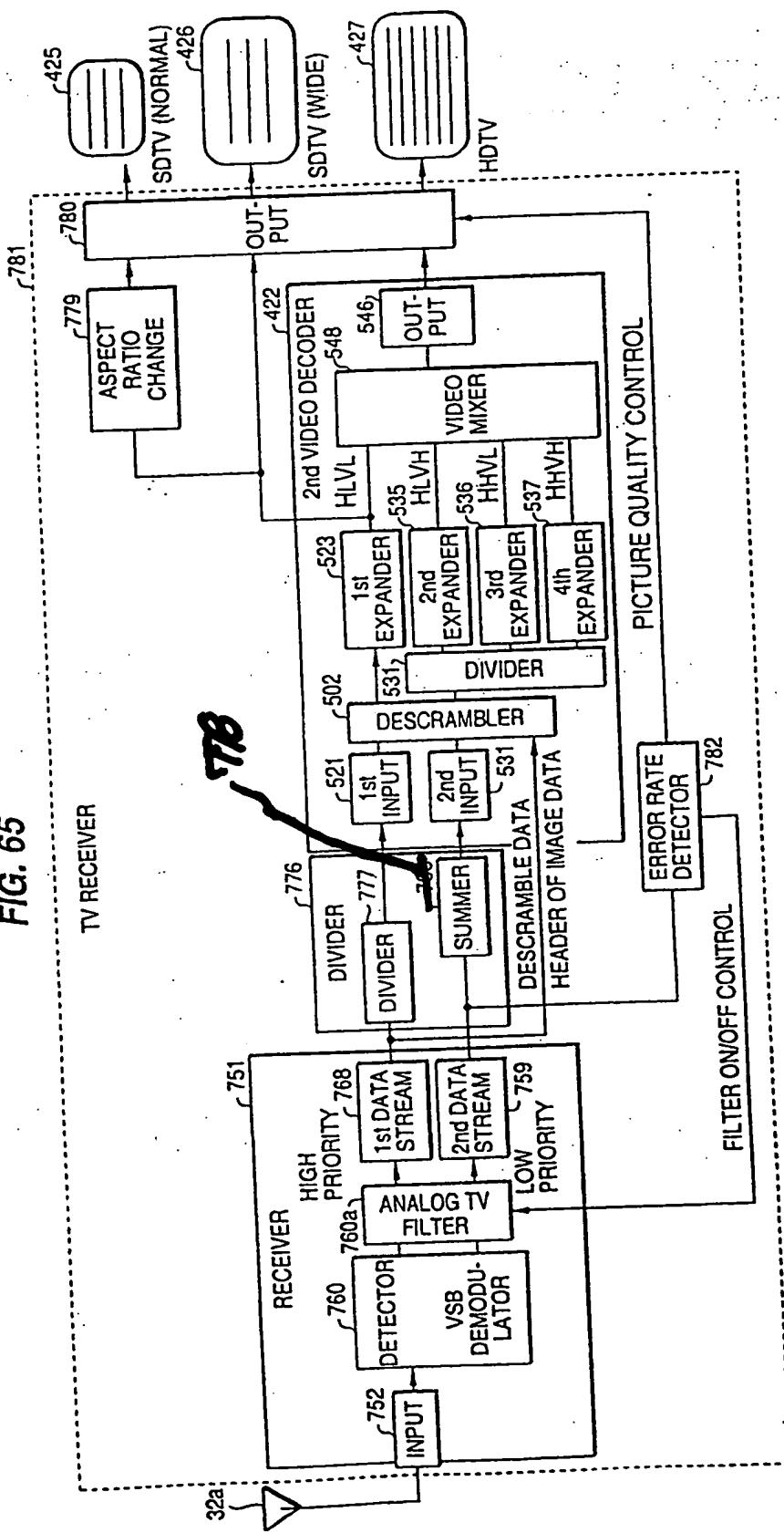


FIG. 67

781

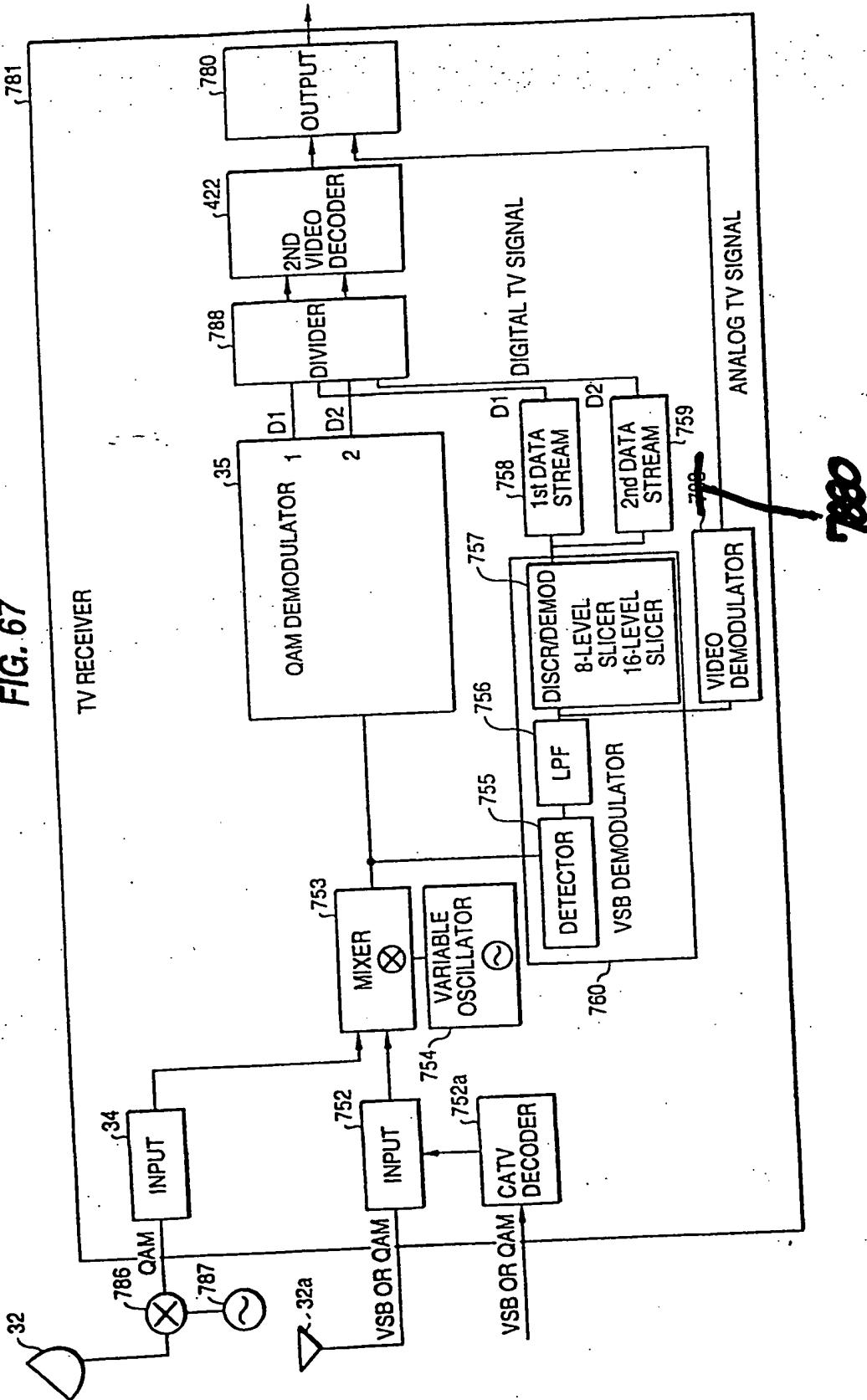


FIG. 93

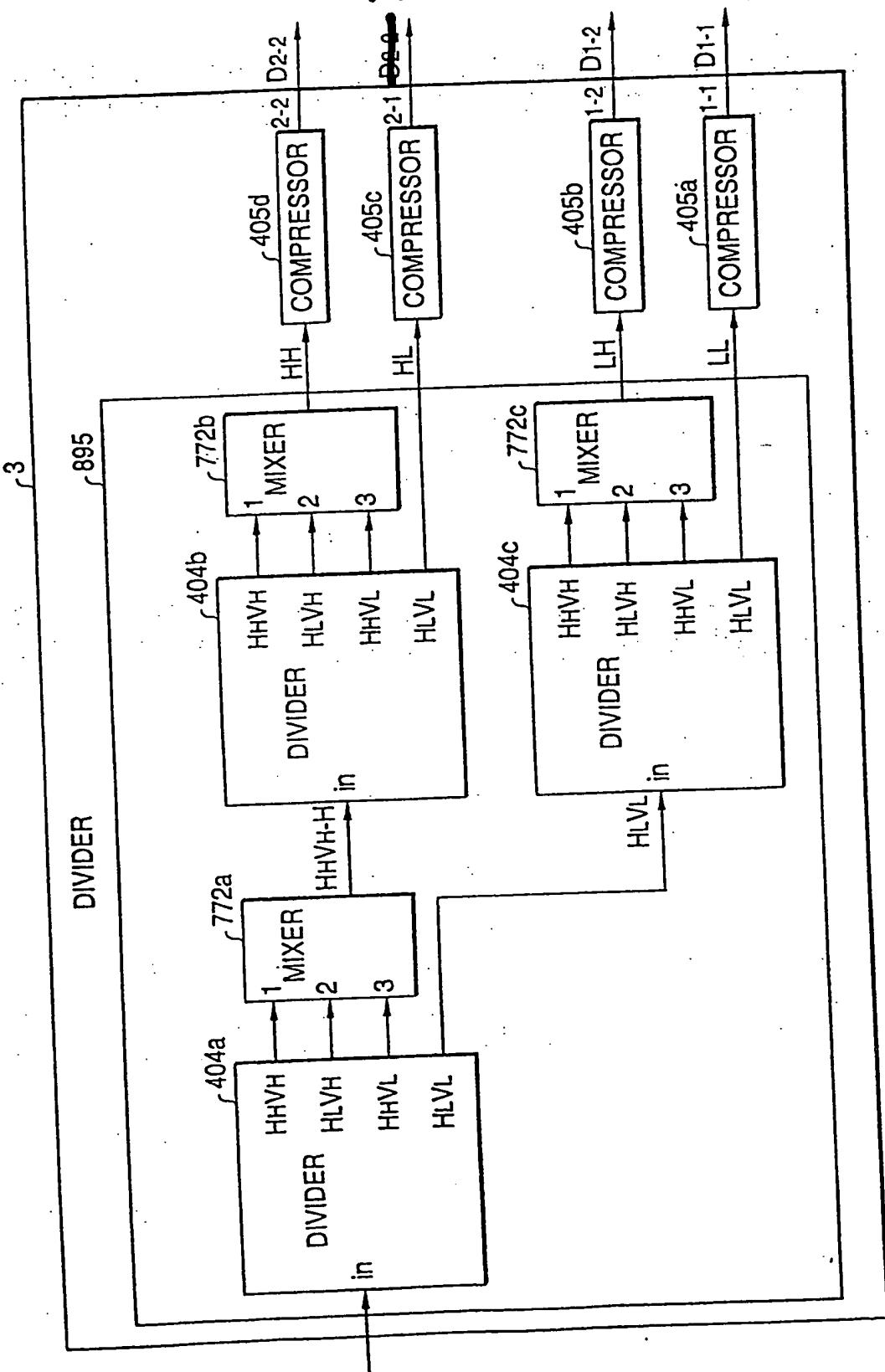
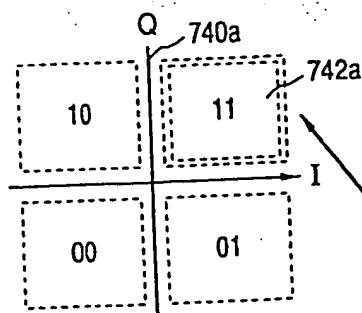
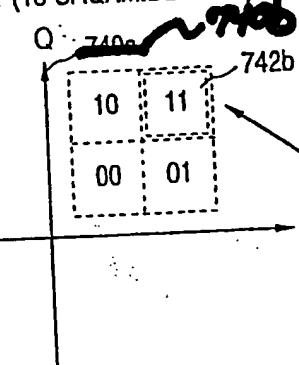


FIG. 112

SUBCHANNEL-1 (SRQAM:D1 = 2bit)



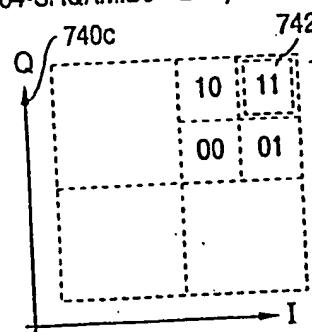
SUBCHANNEL-2 (16-SRQAM:D2 = 2bit)



CODE WORD-1

741a ~ 11 | 2bit  
741b ~ 11 | 2bit  
741c ~ 11 | 2bit  
8bit

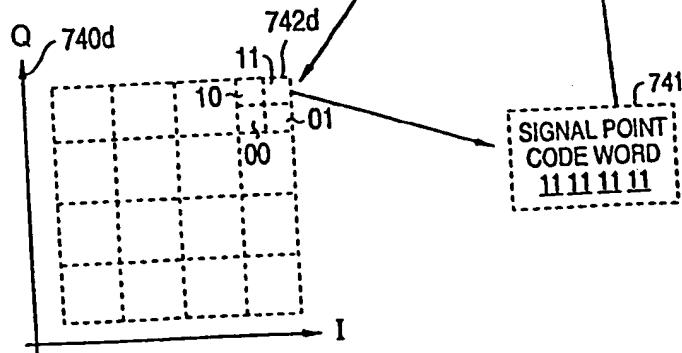
SUBCHANNEL-3 (64-SRQAM:D3 = 2bit)



CODE WORD-2

741d ~ 11 | 2bit

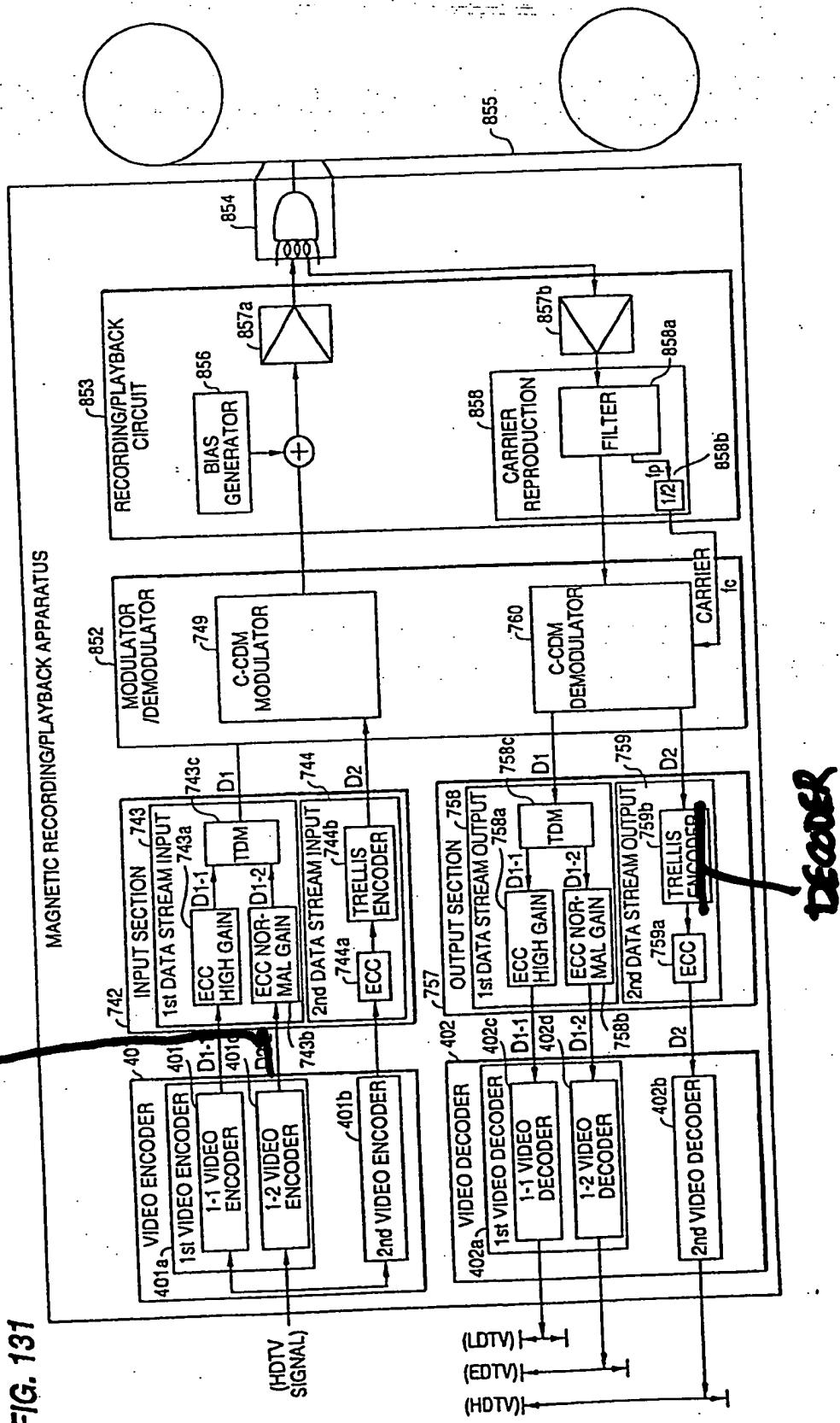
SUBCHANNEL-4 (256-SRQAM:D4 = 2bit)

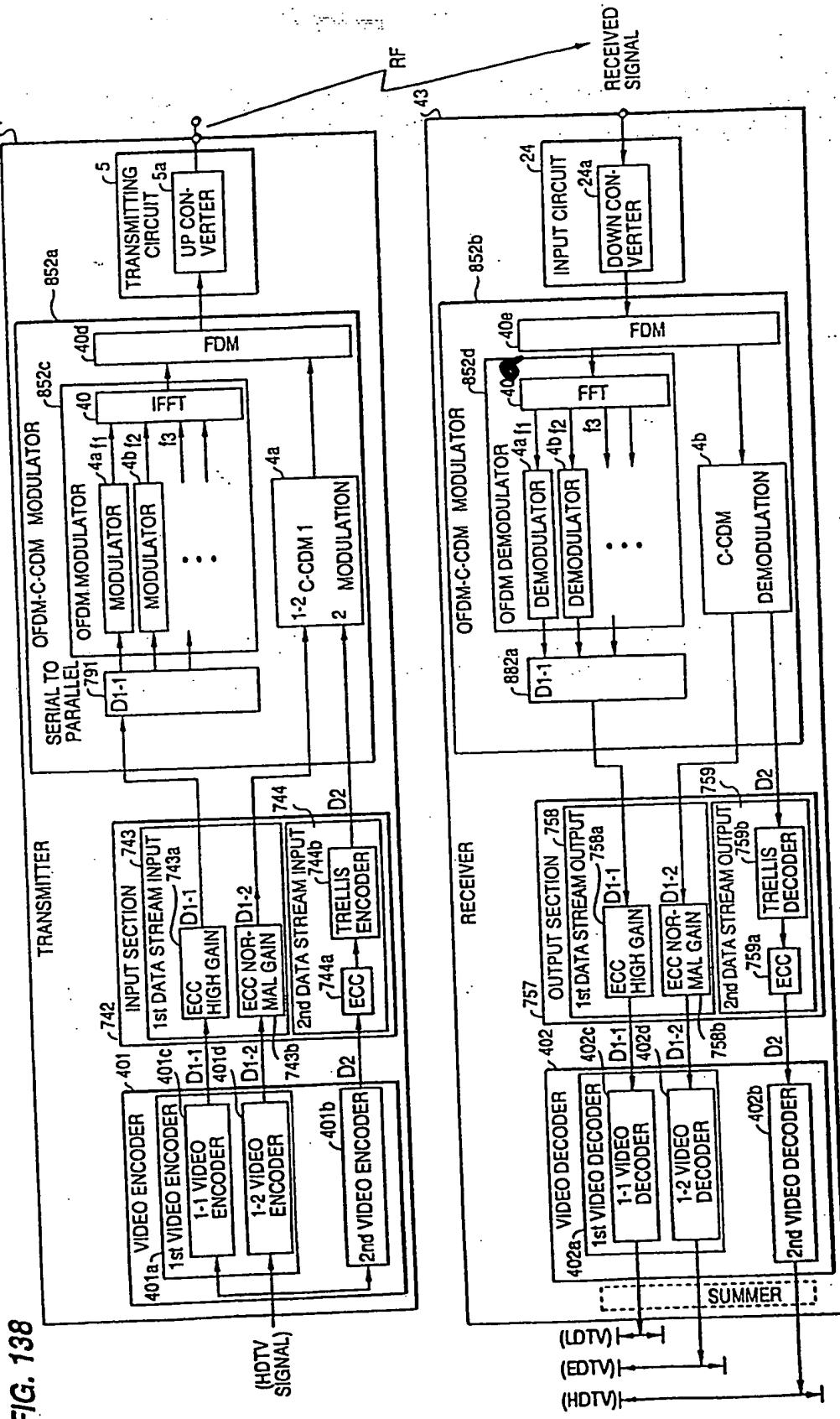


SIGNAL POINT  
CODE WORD  
11 11 11 11

*D-2*

**FIG. 131** MAGNETIC RECORDING/PLAYBACK APPARATUS





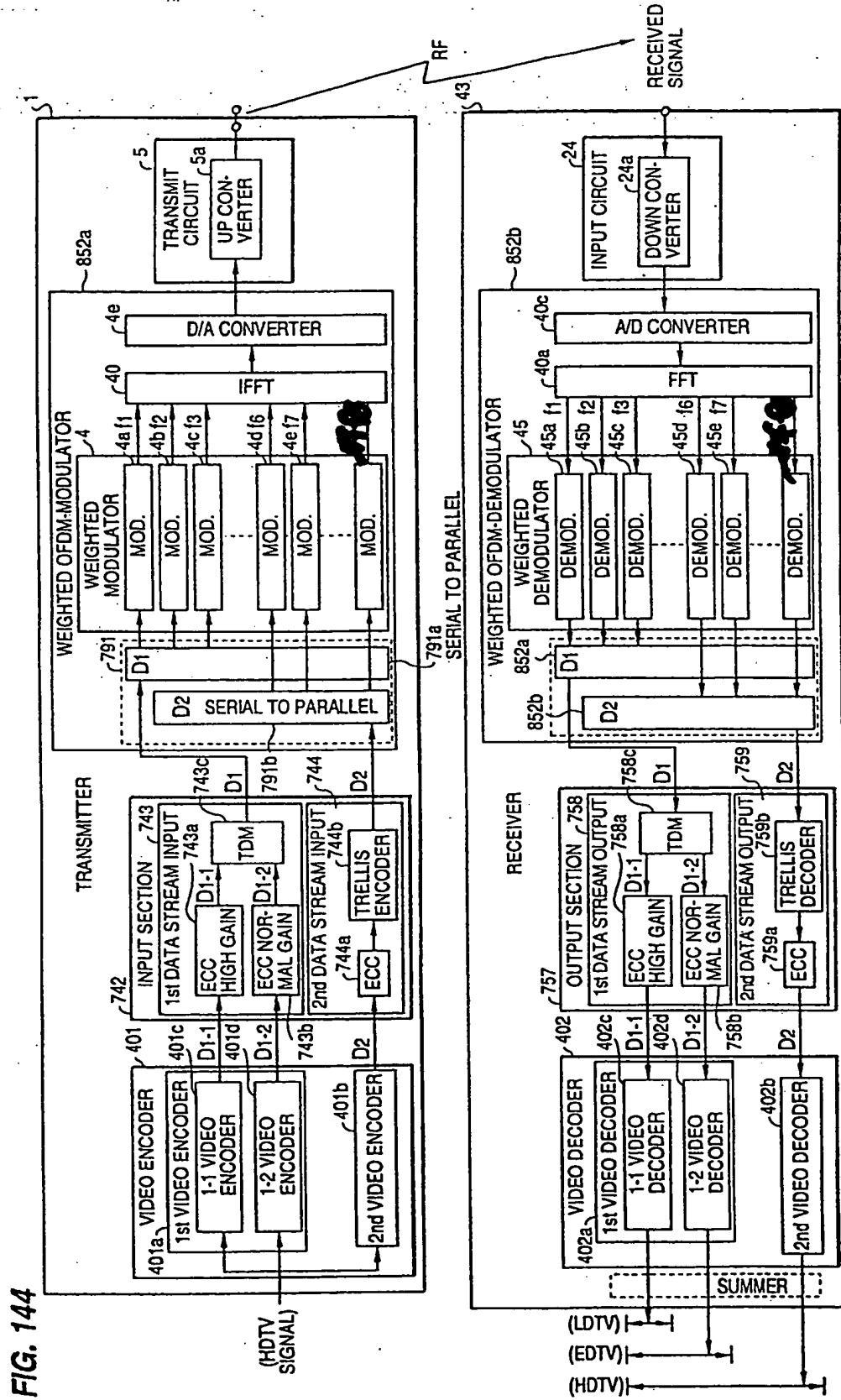


FIG. 144

FIG. 169

## COMPARISON OF REDUNDANCY

